

**To:** Vann, Bradley[Vann.Bradley@epa.gov]  
**From:** Jefferson, Matthew  
**Sent:** Tue 1/13/2015 3:10:42 PM  
**Subject:** RE: Draft characterization language for Letter to Republic (version 1)

Hi Brad,

Overall, I think you hit the major points we discussed in regards to characterization. I have a couple of minor changes:

Let me know if you need anything else....thanks!

Matt

**From:** Vann, Bradley  
**Sent:** Monday, January 12, 2015 5:33 PM  
**To:** Jefferson, Matthew  
**Subject:** Draft characterization language for Letter to Republic (version 1)  
**Importance:** High

Matt, based on our discussion and comments, here are the draft bullet areas, that EPA needs to request from Republic based on the review of existing site data and feedback from ORD and USACE to date (Phase 2). Please review and let me know if I have missed anything. Thanks.

Another round and preferably final Phase (2) of the GCPT with confirmation sonic coring investigation is necessary to fully delineate areas for extent identified as containing RIM. These additional investigations areas shall include both areas within Operable Unit 1 (OU-1) not completely delineated and as follows:

Area 1

1) Complete delineation investigation efforts performed during the Phase 1, 1B, 1C Gamma Cone Penetrometer (GCPT) of recently identified RIM south and west of the previously-defined boundaries of OU-1 Area 1 adjacent to the exiting transfer station and along the former North

Quarry surface ledge boundary.

- 2) Perform delineation at the former North Quarry wall interface and base, as needed into the quarry to confirm Radiologically Impacted Material (RIM) was not placed directly or transported through surface runoff at the time of placement and/or subsurface migration through an existing fractured bedrock media
- 3) Perform a statistically defensible delineation into the former North Quarry to confirm extent or absence of RIM
- 4) Complete delineation of the **known** RIM volume (extent and current depth elevations) that is statistically defensible to support future removal and/or remedial action

#### Area 2

- 1) Complete delineation of the RIM **known** volume (extent and current depth) that is statistically defensible to support future removal and/or remedial action
- 2) Complete and verify any existence of RIM (extent and current depth) at the former Ford Property or Buffer Zone that is statistically defensible to support future removal and/or remedial action

The additional site characterization sampling addendum shall also include field screening analysis followed by the appropriate TCLP and SPLP laboratory confirmation analysis of existing RIM impacted soil cores. The analysis will be conducted for standard toxicity, and characteristic leaching procedure analyses under normal and anticipated simulated Subsurface Smoldering Event (SSE) conditions to ensure the nature of radiologic and non-radiologic materials buried at OU-1 are not mobilized. This will assist the stakeholders and EPA in determining and documenting the risk associated with the RIM on and off site. EPA is currently working with the ORD and USACE to define these methods and will coordinate with Republic over the next several weeks to ensure the selected procedures are fully documented, defensible and provides EPA an opportunity to collect split samples for quality assurance analysis. The sampling effort for this analysis shall be performed concurrently with pending extent (Phase 2 site) characterization.

Within fourteen (14) calendar days of your receipt of this letter, please submit to EPA an addendum to the "Bridgeton Landfill – West Lake Landfill Core Sampling (Phase 1B, 1C and 2) Work Plan, Revision 1" dated January 8, 2014 that describes how and where this additional geotechnical and RIM delineation sampling will be performed and the statistical methodology to be employed. The field work described in this addendum must commence as soon as practicable

after EPA approval of the addendums. To the extent possible, the field work should be concurrent with the early phases of the removal design work to be performed under the Order so that barrier construction can commence as soon as possible.

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